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AUTHOR Rumberger, Russell W.
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ABSTRACT

This chapter examines the current state of research and knowledge about the Chicano dropout problem. In 1986, in every age group, dropout rates were higher for Chicanos than for Whites or other ethnic or racial groups. National dropout rates have improved slightly for Hispanic and Mexican-origin populations since 1980 but remain more than twice as high as rates for Whites. Factors that have been linked to the Chicano dropout problem include family background influences such as socioeconomic status, parental academic involvement, academic encouragement, and social support. Other contributing factors include the type of schools that students attend; family and community environments; and personal characteristics, attitudes, and behaviors. There are sizable economic and social consequences to dropping out of school for all ethnic groups, yet Hispanics and Chicanos may have less to gain economically from finishing high school than other students. For example, White high school dropouts were more than twice as likely as graduates to have no work experience during the year, but for Hispanics there was little difference between dropouts and graduates. Another study found that wage differences between White high school graduates and dropouts were much higher than differences between Hispanic high school graduates and dropouts. Programmatic solutions to the Chicano dropout problem address the failure of the educational system and focus on basic skills training, job-oriented services, and support services. Systemic solutions address the dropout problem as a social problem as well as an educational issue. Systemic solutions require fundamental changes in the educational system and not merely programmatic solutions. Contains 89 references. (LP)

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Chapter 3

CHICANO DROPOUTS: A REVIEW OF RESEARCH AND POLICY ISSUES

Russell W. Rumberger

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Chapter 3

Chicano Dropouts: A Review of Research and Policy Issues

Russell W. Rumberger

One visible form of school failure is dropping out of high school. Dropping out of school has always been costly, both for the individual and for the larger society. By one recent estimate the economic costs alone amount to more than $200,000 for individuals over a lifetime and more than $200 billion for a one-year cohort of dropouts (Catterall, 1987). But interest in school dropouts among policymakers, educational practitioners, and researchers is even greater today than in any recent period. At least two additional factors can account for this recent interest. One is that demographic changes in the US population are increasing the number of persons who have higher risk of dropping out of school. These changes include the growth of minority populations, the poor, and youngsters living in single-parent households (Pallas, Natriello and McDill, 1989). The other factor is that a variety of recent policy reports suggest that the educational demands of work in the US will increase in the future, which could further erode employment opportunities for dropouts (e.g., US Departments of Labor, Education, and Commerce, 1988). Together these trends suggest that the number of dropouts in the US could be increasing at the very time that economic opportunities are decreasing, which could further exacerbate the already poor economic and social circumstances of dropouts.

Much of recent attention to the dropout problem has focused on the Hispanic population. One reason is that the proportion of dropouts in the Hispanic population is significantly higher than any other major ethnic group. For instance, in 1986 more than 25 per cent of all Hispanic youth aged 18 and 19 years old were dropouts, compared to 15 per cent of Blacks and 12 per cent of Whites (Table 3.1). Another reason for this attention is that the Hispanic population is expected to grow faster than any other major ethnic group. Between 1985 and 2020, the number of White youth aged 18–24 is expected to *decline* by 25 per cent, while the number of Hispanic youth will *increase* by 65 per cent (Rumberger, 1990, Table 14.2). Thus, based on current dropout rates, the total number of young dropouts could actually increase over the next thirty-five years.

These trends are not lost on employers, who are now among the most vocal proponents of educational reform (e.g., Committee for Economic Development, 1987). The growth of the Hispanic population and its potential impact on the future labor force is particularly pressing on regions and communities in the

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Table 3.1: Number and proportion of dropouts in population by age, gender, race, ethnicity: 1986

	Age Groups (years)						
	14–15	16–17	18–19	20–21	22–24	25+	Total
Number (in thousands)	176	455	872	1,089	1,726	37,049	41,367
White							
Males	66	215	370	470	741	14,292	16,113
Females	63	179	323	403	667	16,058	17,950
Black							
Males	17	26	74	95	139	2,610	3,089
Females	21	26	83	94	134	3,131	3,601
Hispanic origin							
Males	12	47	95	151	254	2,234	2,531
Females	13	53	69	114	182	2,418	2,668
Mexican origin							
Males	3	31	73	125	220	1,476	1,928
Females	12	49	57	92	120	1,457	1,787
% of Population	2.4	6.1	12.3	14.8	14.3	25.4	23.5
White							
Males	2.2	6.9	12.8	15.9	15.0	24.9	
Females	2.2	6.0	11.0	12.9	13.0	25.7	
Black							
Males	3.0	4.7	14.9	18.1	17.3	38.5	
Females	3.8	4.7	15.2	16.7	15.6	37.0	
Hispanic origin							
Males	3.7	14.4	26.8	34.9	38.2	50.8	
Females	3.7	14.7	24.1	30.9	35.1	52.2	
Mexican origin							
Males	1.5	14.3	31.7	44.6	46.6	56.1	
Females	5.0	20.3	35.3	37.5	36.2	57.2	

Sources: US Bureau of the Census (1988a) Table 37; (1988c) Table 1; (1988d) Table 1.
Note: Hispanic origin and Mexican origin may be of any race. For persons 16 to 24 years old, dropouts are defined as persons with less than 12 years of school and not currently enrolled in school; for persons 25 years old and over, dropouts are defined as persons with less than 12 years of schooling.

United States where Hispanics already represent a sizable proportion of the population. Even for the US as a whole, the Hispanic population, which currently represents less than 10 per cent of the US labor force, will comprise more than 25 per cent of the net labor force increase expected between 1986 and the year 2000 (Fullerton, 1987, Table 3.1).

While concern for various ethnic groups in the US is clearly warranted and gratifying, it is also becoming increasingly clear that substantial differences can exist within major ethnic groups. Such is the case with Hispanics. Hispanic generally refers to persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race (Brown, Rosen, Hill and Olivas, 1980, p. 2). Along a variety of educational and economic indicators, the differences among Hispanic sub-groups are actually greater than differences between Hispanic and non-Hispanic populations. For instance, in 1988, differences in dropout rates between Cuban and Mexican, origin populations —

were greater than differences in dropout rates between Hispanic and non-Hispanic populations (US Bureau of the Census, 1988a, Table 1). Therefore, attention to sub-group differences is as warranted as attention to major ethnic group differences.

Mexican Americans or Chicanos represent two-thirds of the Hispanic population in the United States, by far the largest of the Hispanic sub-groups (US Bureau of the Census, 1988a, Table 1; also, see Valencia, chapter 1, this volume). Chicanos represent an even larger proportion of the Hispanic population in Texas and California (Orum, 1986, p. 7). Moreover, they generally have the lowest socioeconomic status and the lowest level of educational attainment of all the Hispanic sub-groups (US Bureau of the Census, 1988a). Thus the educational and economic circumstances of Chicanos warrant particular attention by researchers and policy makers. Of course, Chicanos themselves are a diverse group who differ in such ways as language use, immigration status, and their own ethnic identities (Matute-Bianchi, 1986).

The purpose of this chapter is to examine the current state of knowledge and research about the Chicano dropout problem. Four facets of the problem will be examined, based on a framework used to examine the overall dropout problem (Rumberger, 1987). The first facet addresses the extent of the dropout problem and trends in the incidence of dropping out. The second facet discusses the factors that predict or are possible causes of the dropout problem. The third facet examines the individual and social consequences to dropping out. The last facet discusses solutions to the Chicano dropout problem.

For each facet of the problem, I will first discuss the current state of research and knowledge about the facet in general and then I will discuss what is known about this facet of the problem with respect to the Chicano population. In the latter case, an attempt will be made to highlight where the nature of the Chicano dropout problem and proposed solutions are similar or dissimilar to that of other ethnic groups, particularly other Hispanic sub-groups and the non-Hispanic, White population. Understanding the extent and nature of these differences may be the key to effective social interventions. Such comparisons are not always possible, however, because existing research and data have not always identified and examined ethnic group or sub-group differences. Ethnic differences are further compounded by gender and socioeconomic differences (Grant and Sleeter, 1986).

The Incidence of the Problem

One reason the dropout problem has received considerable attention is because the incidence of dropping out among particular social groups — and in some educational settings — is considered to be too high and possibly getting worse. But exactly how bad is the dropout problem?

Defining and Measuring Dropouts

The answer depends on how one defines a dropout. Because there is no universal definition of a dropout, it is difficult to know from existing data exactly how extensive the dropout problem is in the US.

In general, a dropout is a person who is not currently enrolled in school and does not have a high school diploma or equivalent certificate. A close examination of this definition reveals a fundamental problem with the entire notion of dropping out. Dropout status, as well as enrollment status and graduation status from which it is determined, are bivariate conditions that reveal little about the varying rate of learning and knowledge that students acquire in school. We use the status of school enrollment and graduation as indications of learning and knowledge when, in fact, the former may reveal very little about the latter. Students who are enrolled in school may not be attending classes and hence learning anything, while students who graduate from school may have acquired very little useful knowledge. For example, a recent study found that more than a quarter of Chicago's recent high school graduates could read only at or below the eighth grade level (Designs for Change, 1985, Table 1).

In other words, we use dropping out as a visible and convenient measure of academic failure and graduation as a visible and convenient measure of academic success when neither reveal much about how much or how little knowledge a student has acquired. Thus, in some respects, too much attention is being placed on dropping out and graduating, when we should be more concerned with student engagement, learning, and knowledge.

Despite the inherent limitations what dropout status means, there will always be continued need and interest in measuring dropouts. Unfortunately, available data on dropouts are potentially inaccurate and incomparable because they are collected by different agencies, using different definitions, and different sources of data. The major source of data at the national level is provided by the US Census Bureau, which annually collects national information on the school enrollment and dropout status of the population from household interviews. Census data may understate the extent of dropping out because school enrollment information is often supplied by parents who may not know or accurately report the enrollment status of their children. However, the data are the most comprehensive available and have been collected for many years, which allows analyses of trends.

The Census computes the proportion of dropouts in the population in two different ways. For persons under the age of 35 years, dropouts are persons who are not enrolled in school at the time of the Census survey and not high school graduates; for persons 35 years of age and over, dropouts are persons who have completed less than twelve years of school or do not have a high school certificate. What do these data show?

The Extent of the Dropout Problem

In 1986 there were more than 41 million dropouts in the United States (see Table 3.1). The proportion of dropouts in the population varies by age, with the higher rates among the adult population and lower rates among the younger age groups. Among adults 25 years and over, 25 per cent were dropouts in 1986, compared to 12 per cent among 18- to 19-year-olds. In general, dropout rates are similar for males and females.

At virtually every age group, dropout rates are higher for Chicanos — roughly twice that of Whites and higher than any other ethnic or racial group

except American Indians. Among adults, for example, dropout rates for Chicano males and females were 56 per cent and 57 per cent compared to rates of 50 per cent and 52 per cent for all Hispanics, respectively, and 25 per cent for both White males and females. Chicanos also have the highest dropout rates among all the Hispanic sub-groups identified in the Census. In 1988, for example, the dropout rate for Mexican-origin Hispanic adults was 55 per cent, compared to 49 per cent for Puerto Ricans, 40 per cent for Cubans and 37 per cent for Central and South Americans (US Bureau of the Census, 1988a, Table 1).

One other notable ethnic difference in dropout rates concerns when students leave school. Hispanic males are almost twice as likely to quit school before completing one year of high school as Hispanic females or Whites. Almost 50 per cent of all 14-to-24-year-old Hispanic males who left school between October 1984 and October 1985 did so before completing one year of high school (nine years of schooling), compared to 28 per cent for Hispanic females and White males (US Bureau of the Census, 1988b, Table 7).

Trends in Dropout Rates

Historically, dropout rates have improved dramatically in the US. In 1940, only 25 per cent of the adult population had completed four years of high school; by 1986, 75 per cent of the adult population had completed high school (US Bureau of the Census, 1988c, Table 19). In recent years, however, improvements have slowed. In the twelve-year period between 1974 and 1986, dropout rates among 18- and 19-year-olds declined from 17 per cent to 12 per cent, while among 25-to-29-year-olds, dropout rates declined from 16 per cent to 14 per cent (Table 3.2). The greater improvement in the younger cohort is attributable to the greater proportion of 18- and 19-year-olds still enrolled in school, which increased from 10 per cent to 13 per cent in this period (US Bureau of the Census, 1975, 1988d).

Only recent trends in Hispanic and Chicano dropout rates can be examined because the Census did not identify Hispanics until 1974 and Mexican-origin Hispanics until 1979. Among Hispanics 25 to 29 years of age, the proportion of male dropouts has remained unchanged at around 40 per cent between 1974 and 1986, while the proportion of female dropouts declined in this period from 50 per cent to 37 per cent. Similar trends occurred for Chicanos from 1980 and 1986, with rates improving for females, but not males. Dropout rates for White females also improved in this period, while dropout rates for White males did not. In contrast, dropout rates among Blacks in this age group improved for males and females.

Among 18- and 19-year-olds, there are more consistent patterns among racial and ethnic groups, with both male and female rates improving in this period. In this age group, Hispanics in general and Chicano males in particular have made dramatic improvements in their dropout rates. The dropout rate among Chicano males, for example, declined from 50 per cent to 32 per cent between 1980 and 1986 (Table 3.2). At least some of this improvement is attributable to an increase in the proportion of Chicano males still enrolled in school, which increased from 11 per cent in 1980 to 17 per cent in 1986 (US Bureau of the Census, 1985, Table 26, 1988d, Table 1).

Overall, Census data reveal general improvements in dropout rates national-

Table 3.2: Dropout rates by age group, sex, race, and ethnicity: 1974, 1980, 1986
(% of the population)

	1974	1980	1986
Total: 18–19-year-olds	16.6	15.7	12.3
White			
Males	17.4	16.1	12.8
Females	13.9	13.8	11.0
Black			
Males	26.9	22.7	14.6
Females	20.2	19.8	15.2
Hispanic origin			
Males	35.1	43.1	29.1
Females	25.1	34.6	24.1
Mexican origin			
Males	—	50.3	31.7
Females	—	39.3	35.3
Total: 25–29-year-olds	16.1	13.9	13.9
White			
Males	13.8	12.7	14.2
Females	15.9	12.7	12.4
Black			
Males	23.9	22.1	16.7
Females	28.5	22.9	19.4
Hispanic origin			
Males	41.9	40.1	40.3
Females	50.1	41.7	36.7
Mexican origin			
Males	—	46.4	46.7
Females	—	46.1	42.6

Sources: US Department of the Census (1975) Table 1; (1985) Table 1; (1988d) Table 1.
Note: Hispanic origin and Mexican origin may be of any race. Dropouts are defined as persons of a given cohort who are not enrolled in school in October of the year in question and have not received a high school diploma or an equivalent high school certificate.

ly, especially for Hispanic- and Mexican-origin populations. Yet, dropout rates for Hispanics and Chicanos still remain more than twice as high as the rates for Whites.

The Causes of the Problem

Much of the research on the dropout issue has focused on identifying the causes of the problem. This focus is part of the larger and more general effort to build models and identify the factors associated with student achievement. The major difference is that in dropout research the educational outcome of interest is dropout status, whereas in student achievement research educational achievement is most frequently measured by grades or test scores.

Attempts to fully understand the causes of dropping out are hampered by the same set of factors that confronts the study of student achievement more

generally. First, there are a large variety of factors that predict or influence dropout behavior, ranging from family background to school characteristics. Second, these factors tend to be highly interrelated making it difficult to assess the influence of any one factor. Third, because dropping out is often viewed as a longer-term, cumulative process of disengagement, it requires a longitudinal perspective to more fully understand how this process takes place and the factors that affect it. Finally, as is the case with any human behavior, dropping out itself is a complex phenomenon. Not all dropouts are the same, just as not all high school graduates are the same. As they themselves report, dropouts leave school for different reasons (Rumberger, 1983, Table II).

The research literature on the causes of high school dropouts is based on a number of social science disciplines — including anthropology, psychology, and sociology — and employs a number of research techniques, ranging from ethnography to large-scale statistical studies. Each research tradition has strengths and weaknesses in improving our understanding of the dropout problem.

Ethnographic studies provide rich descriptions of the circumstances and experiences of students' academic and social lives. But such studies typically focus on only a few, select number of students, which restrict their ability to generalize to the larger, national population of students and dropouts. Large-scale statistical studies typically employ large, national surveys of students, such as the *High School and Beyond* survey of 58,000 high school sophomores and seniors throughout the US in 1980 (Peng, Fetters and Kolstad, 1981). Studies based on large, nationally representative surveys can provide results that can be generalized to the national population of dropouts, but they are restricted by the populations and variables that are surveyed.

For instance, the *High School and Beyond* (HSB) survey, which has been used by a number of recent studies on high school dropouts, was first conducted on a sample of high school sophomores and seniors in the Spring of 1980. Follow-up surveys in 1982, 1984, and 1986 have been used by a number of studies to examine the correlates of dropout behavior among the sophomore cohort. But the sophomore cohort may not be representative of all high school dropouts because many leave school before the end of the tenth grade. This is especially true for Hispanic dropouts, as noted above. Thus, national surveys are not immune to the problem of generalizability.

Another problem shared by most research on dropouts is that studies can only show associations or correlations between dropout behavior and a host of other factors, such as family background or school experiences. Strictly speaking, they can never prove cause and effect. Yet more sophisticated studies are able to more strongly suggest causal relationships by statistically controlling for a variety of spurious or intervening variables. Nonetheless, strict causality should not be inferred from even more sophisticated studies. In the discussion below, the term influence is used to denote association, but not causality.

While all research has limitations, the cumulative findings from all existing studies are able to provide a more complete picture of the many factors that influence dropout behavior. These influences can be grouped into four major categories: family background, schools, community, and personal characteristics. In reviewing the research literature in these four areas, I will address the following questions:

Table 3.3: Selected demographic characteristics of children under 18 years and high school dropout rates by race and ethnicity

	Total	White	Black	Hispanic
Demographic characteristics				
% living below poverty level, 1987	20.0	15.0	45.1	39.3
% with parents who have completed high school, 1987	79.1	80.8	69.4	45.1
% living with both parents, 1987	75.0	80.9	43.1	68.2
High school dropout rates*				
Total	14.4	13.0	17.2	19.1
Composite family SES		M/F	M/F	M/F
Lowest quartile	22.3	23.8/23.7	19.9/16.7	23.3/22.8
Highest quartile	7.0	8.5/3.9	18.0/8.1	10.0/11.5

Sources: US Bureau of the Census (1988) *Money Income and Poverty Status in the United States: 1987*, Current Population Reports No. P-60, No. 161 (Washington, DC, US Government Printing Office), Table 16; US Bureau of the Census (1988), *Marital Status and Living Arrangements: March 1987*, Current Population Reports No. P-20, No. 423 (Washington, DC: US Government Printing Office), Table 9; Barro and Kolstad (1987) Table 4.1

* *Proportion of 1980 high school sophomores who dropped out of school.*

1 Which factors appear to influence dropout behavior?
2 Do these factors influence dropout behavior directly or indirectly, by influencing other antecedents of dropout behavior such as grades and promotion?
3 Do these factors influence dropout behavior similarly for Chicanos as for other ethnic groups, particularly non-Hispanic Whites?
4 To what extent do differences in these factors explain observed differences in dropout rates between Chicanos and other students?

Family Background

As is the case with other measures of student achievement, family background exerts a powerful influence on dropout behavior. The most widely studied aspect of family background is socioeconomic status (SES), which is typically a composite measure of a series of family demographic variables such as family income and parental education. For example, descriptive data from the sophomore cohort of the national *High School and Beyond* study, show that dropout rates are almost three times higher for students from low SES families than from high SES families (Table 3.3). These data also show that the general relationship between family SES and dropout behavior appears to be true for both Whites and Hispanics, but not for Blacks.

Much of the influence of family background on dropout behavior is indirect. That is, family background has been shown to be a powerful predictor of other

measures of student performance — such as student grades, test scores, and retention — which, in turn, are strongly associated with dropping out. For example, high school sophomores in 1980 were twice as likely to drop out if they had been held back a grade, whereas students in the lowest quarter of ability were three to five times as likely to drop out as students in the highest quarter of ability (Barro and Kolstad, 1987, Table 6.1). These factors influence dropout behavior for Hispanics and Chicanos as well as Blacks and Whites, males as well as females, although the relative importance of these three factors appears to vary somewhat between gender, racial, and ethnic groups (Ekstrom, Goertz, Pollack and Rock, 1986; Fernandez, Paulsen and Hirano-Nakanishi, 1989; Rumberger, 1983; Velez, 1989).

Yet even controlling for these other measures of student achievement, most multivariate statistical studies still find a direct effect of family SES on dropout behavior, although in most studies the relationship only holds for Whites but not Hispanics and Chicanos (Ekstrom *et al.*, 1986; Fernandez *et al.*, 1989; Rumberger, 1983). This suggests that for Hispanics and Chicanos, SES influences dropout behavior indirectly, through its influence on other measures of student achievement.

Other aspects of family background also appear to influence dropout behavior, but like SES, they tend to have mostly a direct influence on the dropout behavior for Whites but not for Chicanos and Hispanics. One factor is family composition. In general, research suggests that students from single-parent households are more likely to drop out of school than students from families where both parents are present even controlling for other, intervening factors (Bachman, Green and Wirtanen, 1971; Ekstrom *et al.*, 1986; Fernandez *et al.*, 1989; Rumberger, 1983; Velez, 1989). But of the four studies that examined Hispanics or Chicanos separately from Whites, two found no effects for Hispanics or Chicanos (Fernandez *et al.*, 1989; Rumberger, 1983), while the other two did (Ekstrom *et al.*, 1986; Velez, 1989).

Family size also appears to influence dropout rates: students from larger families tend to have higher dropout rates than students from smaller families (Bachman *et al.*, 1971; Fernandez *et al.*, 1989; Rumberger, 1983). But again the direct influence of family size on dropout rates, after controlling for other factors, only holds for Whites in one study and for Hispanic females in another (Fernandez *et al.*, 1989; Rumberger, 1983).

Two other aspects of family background are of particular interest in understanding Hispanic and Chicano dropout behavior: immigration status and language proficiency. Most evidence suggests that both immigration status and language use influence dropout behavior only indirectly, through their effects on other measures of student achievement, such as grades and retention (Steinberg, Blinde and Chan, 1984). But at least two research studies found that more recent immigrants are more likely to drop out of school than other students, even controlling for other intervening variables (Rumberger, 1983; Velez, 1989).

Immigration status and language use are both associated with SES. More recent Mexican immigrants generally have lower SES than second-and-third generation Mexican Americans, and are more likely to be proficient in Spanish rather than English (Buriel and Cardoza, 1988). Family socioeconomic status has already been shown to influence dropout behavior, largely through its effects on student academic achievement. Research also reveals that lack of English proficiency is strongly associated with grade retention and academic performance

among both Spanish-speaking students and other non-English-speaking students (Steinberg *et al.*, 1984).

Altogether, to what extent do differences in family background between Chicanos and other ethnic groups help explain observed differences in dropout rates among groups? First, Census data reveal widespread racial and ethnic differences in several aspects of family background. In 1987, for example, about 40 per cent of Black and Hispanic children were living in families with incomes below the poverty level, compared to 15 per cent for White children (see Table 3.3). And only 45 per cent of Hispanic parents had completed high school, compared to 69 per cent for Blacks and 81 per cent for Whites.

A couple of recent empirical studies of two different national survey data sets found that at least three-quarters of the differences in observed dropout rates between Whites and Hispanics and Whites and Mexican Americans can be attributable to differences in family background (Fernandez *et al.*, 1989; Rumberger, 1983). These findings suggest that much if not all of the high dropout rates for Hispanics and Chicanos could be eliminated by raising their SES status to that of Whites.

While large-scale statistical studies are able to demonstrate the importance of family background in influencing dropout behavior, generally they are unable to reveal exactly *how* this influence operates. This is because most large surveys usually ascertain *structural* characteristics of families — such as income, parental education, size, and composition — but little about family *processes* or mechanisms. Increasingly, research is now attempting to discover the various mechanisms through which families influence student achievement and dropout behavior (Coleman, 1988). This is where small-scale, ethnographic studies are particularly valuable because they can reveal the complex array of family mechanisms and their interrelationships (e.g., Trueba, Spindler and Spindler, 1990).

Existing research suggests that there are at least several different ways in which families influence the educational achievement of their children. Each of these influences could help explain why Hispanic and Chicano students are more likely to drop out than non-Hispanic, White students.

One important influence is parental *academic involvement*. Regardless of ethnic background, parents of high school graduates — compared to parents of dropouts — are more likely to be actively involved in their children's education through such activities as monitoring homework and attending school and teacher conferences (Delgado-Gaitan, 1988, 1990; Rumberger, Ghatak, Poulos, Ritter and Dornbusch, 1990). There are at least several possible explanations why some parents are more involved than other parents. In some cases, poor parents simply lack the time and resources to fully participate. In some cases, parents, especially recent immigrants, feel they lack the skill and knowledge to more fully participate and end up deferring responsibility to school officials (Delgado-Gaitan, 1988, 1990; Lareau, 1987). Yet schools are also to blame: a recent survey found that inner-city parents are more involved with their children's schools when the schools have strong programs to encourage parental involvement (Dauber and Epstein, 1989).

Another way that families influence student achievement is through proper *academic encouragement*. Research has shown that extrinsic rewards and punishments reduce internal motivation, which leads individuals to explain their own behavior as the product of outside forces (Lepper and Greene, 1978). In contrast,

parents who offer encouragement, praise, and other positive responses leave their children ultimately responsible for their own behavior, which helps develop internal motivation and improves academic performance (Dornbusch, Elworth and Ritter, 1989). This process may also operate on dropout behavior since dropouts in all ethnic groups tend to demonstrate lower levels of internal control and lower educational aspirations than other students (e.g., Ekstrom *et al.*, 1986; Rumberger, 1983; Rumberger *et al.*, 1990). Yet there is no evidence that differences in the type or amount of academic support can explain higher Chicano dropout rates independent of SES.

A final way that families influence student achievement is by providing proper *social support*. Social support, in part, is shaped by parenting styles, which reflect parent-child interactions and decision-making which, in turn, can lead to differences in the amount of autonomy and psychosocial maturity in children. A parenting style that is too permissive can lead to excessive autonomy, more influence from peers, improper social attitudes and behaviors which, in turn, can hurt academic performance and increase the likelihood of dropping out (Dornbusch, Ritter, Leiderman, Roberts and Fraleigh, 1987; Rumberger *et al.*, 1990; Steinberg, Elman and Mounts, 1989). In contrast, students from families that stress joint decision-making are socially more mature, less influenced by their peers, have better social attitudes and behaviors and do better in school.

Some evidence suggests that Hispanic and Mexican American families are less likely than non-Hispanic White families to foster the type of independence that tends to improve academic performance. Dornbusch *et al.* (1987) found that Hispanic students were less likely than White students to come from families with the authoritative parenting styles that are associated with higher grades in school. Anderson and Evans (1976) found that Mexican American students were given less independence training and were granted less autonomy in decision-making in their families compared to Anglo-American students, which reduced their confidence to succeed in school and their school achievement. In both studies, however, Hispanic and Mexican American families had lower SES than Anglo families, suggesting that differences in social support are related to SES, not to ethnic or cultural differences in families.

Clearly more research is needed to better understand how SES, ethnicity, and other family characteristics shape these various family mechanisms as well as how these family mechanisms shape student achievement. But to more fully understand how families influence student achievement and dropout behavior, one must also examine the interaction between families and schools in order to understand why certain types of attitudes and behaviors fostered and supported in the family may or may not be useful in helping students succeed in school. This issue is also relevant to the discussion of schools.

Schools

Despite the powerful influence of family background, schools still make a difference. One recent study of the sixty-three Chicago public high schools found that the actual dropout rates were 50 per cent higher to 50 per cent lower than the rate expected given the composition of the students in the schools (Toles, Schulz and Rice, 1986, Table 1). Thus the types of schools that students attend can help to

compensate for other disadvantages that students bring into school or simply compound them.

Of course the kinds of schools that students attend is influenced by their place of residence and social class. Many Hispanics and other minorities attend inner-city schools that generally are considered poor and have dropout rates as high as 50 per cent (Carnegie Foundation for the Advancement of Teaching, 1988; Hess and Lauber, 1986). In 1984, 27 per cent of all Hispanic students were enrolled in the twenty largest school districts in the United States where minorities represented 70 per cent of student enrollment (US Department of Education, 1987, Table 1:27). Hispanics are now even more likely than Blacks to attend minority concentration schools (see Donato, Menchaca and Valencia, this volume). Moreover, achievement levels in large and segregated schools, in general, are much lower than in other school settings and appear to be attributable, at least in part, to poorer school climate and more staff and student discipline problems (Bryk and Thum, 1989; Espinosa and Ochoa, 1986; Pittman and Haughwout, 1987)

Exactly *how* schools influence dropout behavior is less clear. Ethnographic studies show that dropouts report poor schooling conditions and experiences; schools either fail to engage some students or they actively try to push the difficult and problematic students out (Fine, 1986; Olsen and Edwards, 1982). Engagement can be on two levels: academic and social. Several studies suggest that students who are less socially engaged in school — have fewer friends and are less engaged in formal social activities — are more likely to drop out (Tidwell, 1988; Valverde, 1987; Velez, 1989). Research also shows that students who are less academically engaged — cut class, are absent, and have discipline problems in school — are also more likely to drop out (Ekstrom *et al.*, 1986; Velez, 1989). These relations hold for Hispanics as well as Whites.

As suggested earlier, to better understand how both schools and families influence achievement and dropout behavior, one must focus on the interaction between families and schools. This may be particularly important for understanding the achievement of Chicano children. For instance, research suggests that in the US lower social class children in general and Hispanic children in particular often face learning environments in school that foster poor academic performance and may be dysfunctional to the type of learning style and reward structure found in the home (Laosa, 1977; Ortiz, 1988; Trueba, 1989). In contrast, in Japan there appears to be a complementary and reinforcing relationship between the learning environments and reward structures found in Japanese families and schools (Holloway, 1988).

Community Influences

A third influence on dropout behavior is the community, or the environment outside of the school and the family. This environment includes other social institutions, such as churches or community organizations, the labor market, and peers. Research suggests that the community can exert a powerful influence on student achievement and dropout behavior. And there is at least some evidence to show that Hispanics may be more influenced to drop out by conditions in the community, notably work opportunities and peers.

With respect to labor market influences, males in general and Hispanic males in particular are more likely to report that they left school for economic reasons, including the desire or the need to work (Rumberger, 1983, Table II). In addition, there may be less economic incentives for Hispanic males to finish high school than other male students because the relative rewards for finishing school — earnings and employment rates — are lower for Hispanics than for either Blacks or Whites (see below).

Another community influence on dropout behavior is peers. Recent research reveals that peers exert a powerful influence on children, especially teenagers (Ianni, 1989). Although the influence of peers on dropout behavior has not been the subject of much study, ethnographic studies report that dropouts of all ethnic backgrounds are more likely to associate with other youth who drop out or have low educational aspirations (Delgado-Gaitan, 1986; Fine, 1986; Olsen and Edwards, 1982; Valverde, 1987). Survey studies also confirm that higher educational aspirations of peers are associated with lower dropout rates, even controlling for a host of other factors (Ekstrom *et al.*, 1986; Hanson and Ginsburg, 1988; Rumberger, 1983). Hispanic females especially may be more influenced by the educational aspirations of their friends than other students (Rumberger, 1983, Table IV). Finally, dropouts may be more susceptible to the influence of peers than other students because they are more likely to have difficulties at home or at school (Delgado-Gaitan, 1986; Steinberg and Silverberg, 1986).

Personal Characteristics

The final set of influences on dropout behavior includes a variety of personal characteristics, attitudes, and behaviors. A host of such factors — low educational aspirations, discipline problems, drug use, teenage pregnancy — are associated with increased rates of dropping out of school (Ekstrom *et al.*, 1986; Mensch and Kandel, 1988; Rumberger, 1983). Yet, in general, these characteristics do not explain higher dropout rates for Hispanics and Chicanos.

For example, higher educational aspirations are associated with lower dropout rates for all ethnic groups, including Chicanos (Buriel and Cardoza, 1988; Delgado-Gaitan, 1988; Rumberger, 1983). Yet, in general, Hispanics and Chicanos as well as their parents share the same high level of educational aspirations as non-Hispanic Whites (Delgado-Gaitan, 1988; Rumberger, 1983). Even Chicanos who differ in immigration status show virtually no differences in educational aspirations (Buriel and Cardoza, 1988). Similarly, although teenage pregnancy is associated with dropping out for all females, differences in the incidence of teenage pregnancy do not appear to explain the higher rate of dropping out among Chicano females (Rumberger, 1983).

To summarize, research suggests that a complex myriad of factors leads to dropping out of school. In general, these factors operate similarly on all ethnic groups. Thus it is the *incidence* of these factors that explains the higher dropout rates of Hispanic and Chicano students. The most visible and powerful single factor is SES. Hispanics and Chicanos are more likely to come from low SES families, families where children are more likely to drop out of school regardless of ethnicity. The mechanisms by which families influence dropout behavior are not well understood, but they include both direct effects on students' atti-

tudes, behaviors, and performance in school as well as indirect effects on the types of schools that students attend.

Consequences of the Problem

Dropping out of high school has severe economic and social consequences for both the individual and society at large. The economic consequences are well known: dropouts, in general, have more difficulty getting a job and receive lower wages from the jobs they do get. But there are also a host of other social consequences to dropping out, ranging from increased crime and drug use to poorer health that have not been well documented but, nonetheless, can be considered costly (Rumberger, 1987). An important question in the current discussion is whether the economic and social consequences of dropping out of school are the same for Hispanics and Chicanos as for other ethnic groups.

Economic Consequences

The most often discussed consequence of dropping out of school is economic. Dropouts, in general, have higher rates of unemployment and lower earnings than high school graduates. For example, as shown in Table 3.4, youths who dropped out of high school during the 1984–85 school year had unemployment rates about 50 per cent higher than high school graduates who were not enrolled in college (36 per cent versus 25 per cent). In 1986, male high school dropouts had a median annual income that was 32 per cent lower than male high school graduates, while female dropouts had a median annual income that was 30 per cent lower than female high school graduates (see Table 3.4).

These differences persist over the entire working lifetime and thus can be sizeable. In 1985, the expected difference in lifetime earnings between a male high school graduate and a male high school dropout amounted to $212,00, while the difference for females amounted to $142,000 (Rumberger, 1990, Table 14.6).

In general, therefore, there appears to be a powerful economic incentive for students to finish high school. But is this economic incentive similar for Hispanics and Chicanos as for Whites and other groups? Recent data suggest that the answer may be no.

As shown in Table 3.4, unemployment rates in October 1985 for White youths who dropped out of high school during the 1984–85 school year was almost twice as high as high school graduates from the year before who were not enrolled in college. But for Hispanics, dropouts had an unemployment rate only slightly higher than high school graduates. And Black dropouts had unemployment rates than were actually lower than Black high school graduates! Of course these estimates are based on rather small samples and are therefore subject to error, but they do suggest that the employment benefits to completing high school may not be as great as commonly believed. Differences in earnings for Hispanic dropouts and graduates were more similar to differences for Blacks and Whites, although male Hispanics still received a lower economic payoff to completing high school than Whites.

Table 3.4 Unemployment and income of high school graduates and dropouts by race/ethnicity and sex, 1985 and 1986

	Total	White	Black	Hispanic
Unemployment rate (%), October 1985 (1984–85 high school dropouts and graduates)				
Dropouts	35.6	35.2	43.5	45.2
Graduates not enrolled in college	24.6	18.1	55.1	40.8
Ratio Dropouts/Graduates	1.45	1.94	.79	1.11
Median Income ($), 1986 (Persons 25 years and older)				
Males				
Dropouts (1–3 years of high school)	13,401	14,000	11,318	12,253
Graduates	19,772	20,468	14,465	16,102
Ratio Dropouts/Graduates	.68	.68	.78	.76
Females				
Dropouts (1–3 years of high school)	5,831	5,938	5,190	5,855
Graduates	8,366	8,388	8,244	8,453
Ratio Dropouts/Graduates	.70	.71	.63	.69

Sources: Sharon R. Cohany, 'What happened to the high school class of 1985?' *Monthly Labor Review*, **109** (October 1986) Table 1; US Bureau of the Census, (1988) *Money Income of Households, Families, and Persons in the United States: 1986, Current Population Reports, Series P-60, No. 159*, Washington, DC, US Government Printing Office, June, Table 35; US Bureau of the Census (1988a), Table 17.

Note: Hispanic origin may be of any race.

Other data further support the notion that Hispanics receive a lower economic benefit to graduating from high school than Whites. In 1986, White high school dropouts were more than twice as likely as graduates to have no work experience during the year — 11.8 per cent versus 4.8 per cent — but for Hispanics there was little difference — 9.6 per cent versus 8.9 per cent (Markey, 1988, p. 41). Another study found that differences in wages between White high school graduates and dropouts were much higher than differences between Hispanic high school graduates and dropouts (Stern and Paik, 1989). Yet another study found that Hispanic high school graduates only earned 5 per cent more than Hispanic dropouts of similar ability levels, while the relative advantages for Whites and Blacks were 8 per cent and 30 per cent, respectively (Berlin and Sum, 1988, Table C-3). Finally, historical data suggest that the economic incentives to Hispanics to graduate from high school appear to have diminished over time (Rumberger, 1987, Table 4).

Social Consequences

The social consequences to dropping out of high school include the economic consequences discussed above, since society as a whole suffers from foregone

earnings and taxes from individuals with inadequate schooling. But the social consequences of dropping out are even greater. In the only comprehensive study that has ever been done on the social consequences of dropouts, Levin (1972) identified seven social consequences of dropping out of high school (p. 10):

1 forgone national income;
2 forgone tax revenues for the support of government services;
3 increased demand for social services;
4 increased crime;
5 reduced political participation;
6 reduced intergenerational mobility;
7 poorer levels of health.

For each of these areas he examined the research literature on the relation between education and that particular social outcome. He then estimated the social costs associated with the first four outcomes. For a cohort of male dropouts 25–34 years of age in 1969, foregone income over a lifetime was estimated at $237 billion and foregone government tax receipts were estimated at $71 billion (Levin, 1972, p. IX). In addition, welfare expenditures attributable to dropouts were estimated at $3 billion per year and criminal expenditures were estimated at another $3 billion dollars (*ibid.*).

Recent research continues to support the conclusions that dropping out leads to a variety of adverse social consequences. For example, high school dropouts were twice as likely to live below the poverty level in 1986 than as high school graduates (Rumberger, 1990, Table 14.6). Young female dropouts are 50 per cent more likely to give birth to a child out of wedlock than young female graduates with similar backgrounds (Berlin and Sum, 1988, p. 41). Dropouts are more likely to engage in criminal behavior and get arrested than graduates (Berlin and Sum, 1988; Thornberry, Moore and Christenson, 1985). And dropouts are more likely to use both legal drugs (cigarettes and alcohol) and illegal drugs (marijuana and cocaine) than high school graduates (Mensch and Kandel, 1988). Although the incidence of these activities is rarely disaggregated by ethnicity in these studies, there is no reason to expect them to be any different for Hispanics and Chicanos than for other ethnic groups (for one study, see Bruno and Doscher, 1979). One recent study of Los Angeles, which has a high concentration of Hispanic students, estimated that the foregone income associated with one cohort of dropouts in 1986 was $3.2 billion and the social costs to local government of funding criminal services, welfare, and health attributable to dropouts were $488 million (Catterall, 1987, Table 4).

In summary, there are sizable economic and social consequences to dropping out of school for all ethnic groups. Yet there is at least some evidence to suggest that Hispanics and Chicanos may have less to gain economically from finishing high school than other students. If students respond to incentives or disincentives in the labor market, as some people suggest (Bishop, 1989), then as such evidence becomes evident to students it becomes harder for parents, teachers, and other persons to convince non-college-bound Hispanic and Chicano students to remain in school.

Solutions to the Problem

The problem of high school dropouts is more than an academic concern. There is widespread interest and activity both inside and outside of the education community in trying to solve the problem. Policy makers at the federal and state levels have enacted a variety of policies and programs to help solve the dropout problem (e.g., Council of Chief State School Officers, 1987). Foundations have funded programs to address the problem. And education and community organizations have developed and implemented a wide variety of dropout prevention and recovery programs (Orr, 1987; Rumberger, 1990). But are these efforts likely to solve the dropout problem in general, and the dropout problem among Hispanics and Chicanos in particular?

The answer depends on how one views the dropout problem. If one views the dropout problem as largely a problem of educational failure that affects a relatively small proportion of students, then *programmatic solutions* might be able to effectively solve the problem. In this case, one could be quite sanguine about 'solving' the dropout problem. If, however, one views the dropout problem as a larger, endemic social problem that affects the majority of students in some schools and districts, then solving the problem may require more *systemic solutions*. And because such changes are more sweeping and difficult to achieve, it is harder to be as sanguine about the prospects for success. A case can be made for each perspective.

Programmatic Solutions

Most of the effort to solve the dropout problem can be classified as programmatic solutions. Currently there are hundreds of local programs around the country that are designed to keep potential dropouts in school and help existing dropouts to get additional schooling or training. Unfortunately, there is little comprehensive information available at a national level about how much is being spent on dropout programs, how many students are being served, and whether these programs are successful.

The only recent effort to try to document dropout efforts nationally was conducted by the General Accounting Office (GAO) in the autumn of 1986. After reviewing literature and contacting a large number of national, state, and local agencies, the GAO compiled a list of more than 1,000 dropout programs (US GAO 1987, Appendix I). But a mail survey of those programs yielded useful information on a total of only 479 programs. Twenty-six of these programs primarily served Hispanics, so it is possible to compare these programs with the total sample of programs.

Survey information included descriptions of the major features of the dropout programs. Generally, dropout programs provide a wide array of services (Table 3.5). This array of services reflects the fact that programs are often designed to serve multiple objectives and to meet the various needs of their clients. These needs and objectives fall into several categories:

Basic skills training. One of the fundamental needs that recovery programs serve is to provide basic skills training in such areas as language and mathematics,

Table 3.5. Services provided in all dropout programs and programs primarily serving Hispanics

	All Dropout Programs		Hispanic Programs*	
	% of Programs	% Served	% of Programs	% Served
Personal counseling	94	74	100	46
Basic education	91	84	92	87
Career counseling	76	67	85	46
Parental involvement encouraged	74	62	89	65
Assistance in obtaining social services	70	48	69	75
Job search assistance	69	41	77	43
Job skills training	62	45	65	43
Part-time employment placement	56	31	69	42
Pregnancy/parental counseling	54	31	50	60
GED preparation	46	28	39	10
Day care	23	18	23	32
English as a second language	14	16	50	11
Number of programs	479		26	

Source: *US General Accounting Office (1987) Table 2.4.*
* *Programs serving at least 50 per cent Hispanic youth.*

where many dropouts are highly deficient. For example, a recent survey of young Americans (21–25 years of age) found that only one quarter of all dropouts with 9–12 years of schooling could read at the level of an average eleventh grader and only one-half could read at the level of an average eighth grader (Kirsch and Jungeblut, 1986, Table 6). The GAO survey found that 91 per cent of all dropout programs provided basic education and that 84 per cent of program participants received basic education services (see Table 3.5). Similar proportions were reported in programs that primarily serviced Hispanics. A much larger proportion of Hispanic programs, however, offered services in English as a second language (50 per cent versus 14 per cent for all programs), although only a small percentage of program participants were served by such programs.

In addition, about one-half of all dropout programs surveyed provide preparation to take the General Educational Development (GED) Test, administered by the GED Testing Service of the American Council on Education (1986), which provides alternative means for students to obtain a high school equivalency certificate from their state. But only about one-quarter of all program participants are involved in GED preparation and only 10 per cent of participants in Hispanic programs are involved (see Table 3.5).

Job-oriented services Another need that dropout programs are designed to serve is for job-oriented services, which include vocational training, pre-employment skills training (e.g., interview techniques), and job-placement services. About

two-thirds of the dropout programs surveyed by the GAO provided such services, with about half of all participants using them. Similar proportions were reported in Hispanic dropout programs.

Support services A third and often critical component of dropout programs is support services. Investigations of the dropout problem have found that dropouts frequently leave school because of a variety of school problems, including pregnancy, drugs, family problems, or other personal problems (Olsen and Edwards, 1982; Rumberger, 1987). In order for many of them to successfully complete their schooling, these social problems need to be addressed. Thus most dropout programs in general and those primarily serving Hispanics provide an array of social services, ranging from career and personal counseling to day care (see Table 3.5).

Dropout programs not only serve students who are at risk of dropping out, but also students who have already left school. While there are no national data on exactly how many students are being served by either type of program, it is known that a sizeable number of dropouts eventually receive a high school diploma or equivalent certificate. A national survey of persons 21–25 years of age in 1985 found that almost 50 per cent of persons with less than twelve years of school had studied to take the GED exam, with about 40 per cent of those persons receiving one (Kirsch and Jungeblut, 1986, Figure 3). Thus, these data suggest about 20 per cent of all young dropouts eventually receive a high school diploma by passing the GED exam. Another study based on the *High School and Beyond* survey of high school sophomores in 1980 who later dropped out of school found that 45 per cent had received a high school diploma within six years, with one-third of those actually graduating from high school and two-thirds receiving an equivalent certificate by passing the GED exam (Kolstad and Kaufman, 1989, Table 1). Among Hispanic dropouts, only one-third eventually finished school, with almost 80 per cent of those passing the GED exam.

In order for programmatic solutions to the dropout problem to be successful, it is important to know which programs are the most effective and the most cost-effective. Unfortunately, such information is rarely available. The GAO survey of dropout programs generated only twenty rigorous evaluations of the 479 programs that responded to the survey (US GAO, 1987, p. 19). It appears that many more resources are being used to fund programs than to find out whether the programs are actually effective. This appears to be true with other education programs as well (Slavin, 1989). Such a view is short-sighted, however, because scarce public resources would be better used to fund and implement only the most successful programs.

Although information on program effectiveness is generally lacking, there is some information on the factors contributing to successful programs (where success is identified by program providers). The majority of respondents to the GAO survey of dropout prevention and recovery programs identified five factors that had the greatest impact on program effectiveness (US GAO, 1987, Table 2.3):

1 a caring and committed staff;
2 a non-threatening environment for learning;
3 a low student-teacher ratio;

4 individualized instruction;
5 program flexibility.

Other studies of effective dropout programs have identified essentially the same set of factors (Merchant, 1987; Olsen and Edwards, 1982; Stern, 1986; Wehlage, Rutter, Smith, Lesko and Fernandez, 1989). Of course, simply following this list of factors does not guarantee an effective program. Moreover, some programs may be better at serving different sorts of dropouts than others — such as those serving Hispanics — which also supports the idea of more rigorous program evaluations.

A couple of other difficulties remain to overcome in programmatic efforts to solve the dropout problem. One is that more attention needs to be focused on early prevention, since many at-risk students are already two or more grade levels behind before they even reach high school (Levin, 1988). Another is that more attention be focused on dropout recovery, since only a small fraction of the more than 40 million adult dropouts are enrolled in regular schools, GED programs, or other education and training programs (Rumberger, 1990).

Systemic Solutions

A different approach to solving the dropout problem is necessary if one views the dropout problem as affecting a sizable number of students, as in some communities, or if one views dropping out as a social as well as an educational problem. Both of these aspects apply to many Chicanos and other minorities.

First, most Hispanics and other minorities attend minority-concentration schools. In California, 70 per cent of all minority students in 1984 were enrolled in minority-concentration schools (Haycock and Navarro, 1988, p. 9). As reported above, 27 per cent of all Hispanic students nationally in 1984 were enrolled in the twenty largest school districts in the United States where minorities represented 70 per cent of student enrollment (US Department of Education, 1987, Table 1:27). In large, urban school systems, in particular, where dropout rates approach 40 or 50 per cent, dropping out is the norm rather than the exception (Carnegie Foundation for the Advancement of Teaching, 1988; Hess and Lauber, 1986). And at least for students in these districts, the solution to the problem may require fundamental, systemic changes in the entire school system rather than simply the type of programmatic solutions described above.

Although such changes are difficult to achieve, some fundamental, systemic changes are currently being undertaken in the United States. Some specific programs are being developed that completely restructure elementary schools with predominantly poor, minority students that promise to bring such students up to the achievement levels of other students, which would reduce the likelihood of dropping out in high school (Comer, 1988; Levin, 1988; Slavin and Madden, 1989). New structural arrangements and forms of decision-making are being tried within some districts and schools to foster improved education (Walberg, Bakalis, Bast and Baer, 1989). And the most radical idea being implemented in a large number of states is to permit parents to choose the schools that their children attend (Nathan, 1987), although such a scheme could increase the segregation of students across schools.

A second reason to argue that only systemic solutions can solve the dropout problem rests on a recognition that dropping out is more of a social than an educational problem. It is a social problem in that many dropouts have a variety of other problems in their lives, such as family problems, problems with drugs and crime, or problems with teenage pregnancy. It also is a social problem in that the earlier discussion suggests that there are three major sources of influence on dropping out and other behaviors of young people — families, schools, and communities. If one views these sources as additive — that is, that each plays a significant role in influencing the attitudes, behavior, and academic performance of young people — then each must play a role in addressing the dropout problem.

Recognition of the important role of families, schools, and communities in influencing the behavior of young people is the basis of several types of reform efforts to help potential and actual dropouts. Many educators have long-argued that parents must be centrally involved in improving the educational performance of their children. Thus many dropout programs are built around parental involvement (Orr, 1987; Wehlage, *et al.*, 1989). Other efforts to reduce the dropout problem involve strengthening the role of community, particularly community organizations and the business community. In fact, some observers argue that community involvement is crucial to the successful education of youth because families and schools cannot and should not shoulder the burden alone (Heath and McLaughlin, 1987). In some dropout programs, for example, such as the Boston Compact, the business community plays an important role in programs designed to improve the relevance and payoff to completing high school (Schwartz and Hargroves, 1986–87).

Although systemic solutions are perhaps the only remedy likely to improve the dropout problem for many students, including Chicano students, they are also more difficult to achieve. Moreover, if one believes that systematic efforts must involve changes in circumstances and influences of families and community, then the task of achieving meaningful change and improvement in the dropout problem becomes even greater.

Ultimately, whether one believes such efforts will be successful and spread throughout the educational system depends on one's belief in the educational system as a catalyst for social change. On the one hand, there is a longstanding faith in this country that education can serve to promote social change and improve the social standing of poor, disadvantaged groups. On the other hand, there are critics of the status quo who point out that schools have historically tended to reinforce and perpetuate social class and ethnic differences rather than eliminate them (Bowles and Gintis, 1976; Carnoy and Levin, 1985; see Pearl, in this volume, for a fuller treatment of the debate over various school reform efforts).

The Economic Rationale for Social Intervention

No matter which category of educational solutions one believes is necessary to solve the Chicano dropout problem, there is a strong economic rationale for increased social investment in dropout programs and all programs for the educationally disadvantaged (Levin, 1989a, 1989b). In general, the argument can be

made on the basis that the benefits of increasing spending on dropout programs will far exceed the costs of funding such programs.

Unfortunately, few comprehensive studies have ever been conducted that have examined both the costs and benefits of social investment in dropout programs. Levin (1972) estimated that if expenditures on at-risk students were increased by 50 per cent to insure graduation from high school, then the benefits from higher earnings would exceed the costs by a ratio of 6:1. Or based simply on the increased taxes generated from those earnings, taxpayers would receive almost $2 for every dollar invested in dropout prevention. A more recent replication done in Texas that attempted to account for the additional social benefits of reduced crime, welfare, and training costs associated with dropouts estimated that the benefits of dropout prevention would exceed the costs by a ratio of 9:1 (Ramirez and Del Refugio Robledo, 1987).

In general, it appears that the benefits of social investment in dropout prevention and recovery programs would easily outweigh the costs, even if the benefits were restricted to increased tax receipts from the higher earnings associated with high school completion (Rumberger, 1990). And although Chicano high school graduates have, on average, lower earnings than non-Hispanic, White graduates, the social benefits of reducing the dropout rate for Chicanos would still outweigh the costs.

Conclusions

Dropping out of high school is one visible form of educational failure. While graduating from high school alone will not guarantee social and economic success, failure to graduate from high school will most likely deny it. Because so many Chicanos drop out of high school, the economic and social welfare of the entire Chicano population is unlikely to improve until their educational welfare improves.

Many aspects of this problem warrant attention. First, we need to collect more extensive and accurate data on the educational and social experiences of all students in order to better measure the extent of the dropout problem and its causes. Research clearly has a continued role to play in trying to understand and decipher the nature of this complex educational issue.

Second, we need to better document the full range of individual and social consequences associated with dropping out. In particular, we need better estimates of the social costs of dropping out since the few estimates that have been done suggest significant returns to social investments in education (Levin, 1972).

Third, and most important, we need to get on with development, evaluation, and implementation of programs and reforms to improve the educational outcomes of not just Chicanos, but all minority and disadvantaged groups. At a programmatic level, many promising efforts are already under way (Slavin and Madden, 1989). The more difficult and necessary task is to promote fundamental and systemic changes in the current educational system in the United States.

Yet educational reform may not be enough because Chicano school failure is not simply an educational problem. Thirty per cent of all Chicano families and 40 per cent of all Chicano children live in poverty in this country. Many live in segregated, poor neighborhoods. Without a significant improvement in the

economic welfare of Chicano families and the communities in which many of them live, the Chicano dropout problem is unlikely to improve dramatically.

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